General

Guideline Title

Catheterisation. Urethral intermittent in adults: dilatation, urethral intermittent in adults.

Bibliographic Source(s)

Vahr S, Cobussen-Boekhorst H, Eikenboom J, Geng V, Holroyd S, Lester M, Pearce I, Vandewinkel C. Catheterisation. Urethral intermittent in adults: dilatation, urethral intermittent in adults. Arnhem (The Netherlands): European Association of Urology Nurses (EAUN); 2013 Mar. 96 p. [119 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

Level of evidence (LE) (1a-4) and grade of recommendation (GR) (A-C) are defined at the end of the "Major Recommendations" field.

Complications

Infection

- The development of epididymo-orchitis in a patient performing intermittent catheterisation (IC) should be treated with antibiotic therapy; the choice and duration of which will be dictated by local policy. (LE=4, GR=C)
- The development of prostatitis in a patient performing IC should be treated with antibiotic therapy; the choice and duration of which will be dictated by local policy (Wyndaele, 1985; Wyndaele & Maes, 1990). (LE=2b, GR=B)
- In a patient performing IC, only symptomatic urinary tract infection (UTI) should be treated (Tenke et al., 2008). (LE=4, GR=C)

Trauma

- Use a hydrophilic or gel reservoir catheter for IC. (LE=4, GR=C)
- The development of a false passage in a patient performing IC should be treated with antibiotic therapy; the choice and duration of which will be dictated by local policy, and an indwelling urethral catheter. (LE=4, GR=C)

Catheter Material, Types of Catheters, and Equipment

Types of Catheters

- Make sure the self-catheterising patient is aware which catheters can be reused in the home setting. (LE=4, GR=C)

- Make sure that patients using reusable catheters are aware how to clean and store the catheter. (LE=4, GR=C)

Diameter Size and Length

- Choose a catheter size large enough to allow free drainage but small enough to reduce risk of trauma. (LE=4, GR=C)

Catheter Lubrication/Catheter Coating

- Choose lubricant/type of catheter coating based on a comprehensive patient assessment and the reasons for IC. (LE=4, GR=C)

Principles of Management of Nursing Intervention

- Observe local policy before starting catheterisation. (LE=4, GR=C)
- Be aware that IC is a medical order. (LE=4, GR=C)
- Assess the patients and their individual circumstances for IC before choosing type of catheter, tip, and aids (LE=4, GR=C)
- Be aware that the patient's privacy is paramount in all locations (Logan et al., 2008; The National Intermittent Catheterisation Professional Group [NICPG], 2009). (LE=4, GR=C)

Frequency of Catheterisation

- Assess the fluid intake of the patient if the urine output is >3 l/day or there is a need to catheterise >6 times/day. (LE=4, GR=C)
- Assess the fluid intake of the patient if urine output is >500 ml per catheterisation. (LE=4, GR=C)
- Assess the frequency if the urine output is >500 ml per catheterisation. (LE=4, GR=C)
- Assess the need for adjustment in anticholinergic medication in patients with post voiding residual (PVR) and overactive bladder (OAB) and frequent need for catheterisation. (LE=4, GR=C)
- IC before night-time is recommended to help reduce nocturia. (LE=4, GR=C)

Residual Urine Volume

- Choose ultrasound to measure residual urine volume after emptying the bladder spontaneously. (LE=4, GR=C)
- In case of PVR, IC once daily is recommended to prevent catheter-associated urinary tract infection (CAUTI). (LE=4, GR=C)

Patient and Caregiver Assessment

- Assess the caregiver's general health, dexterity, motivation, understanding, and availability to undergo IC (Robinson, 2007). (LE=4, GR=C)
- Assess whether the patient/caregiver has an understanding of the basic anatomy and function of the urinary system (Oh et al., 2006). (LE=4, GR=C)
- Ensure that the patient and/or caregiver has a clear understanding of the patient's relevant urological condition and why he/she requires IC (Wyndaele, 2002). (LE=4, GR=C)
- Use a checklist to predict ability for IC especially in neurological patients (Amarenco et al., 2011). (LE=4, GR=B)
- Investigate the need for special hand devices and the motivation of the patient (van Achterberg et al., 2008). (LE=4, GR=B)
- Recommend catheter material that is most suitable for the patient's lifestyle (Pascoe & Clovis, 2001). (LE=3, GR=B)
- Obtain informed consent to agree with the patient the choice of caregiver who will carry out IC (Shaw et al., 2008). (LE=4, GR=C)
- Provide patients with contact details of any available patient organisations or peer support to enhance compliance. (LE=4, GR=C)
- Offer support to patients and/or caregivers to help them overcome any initial resistance to IC (Logan et al., 2008). (LE=4, GR=B)
- Investigate the needs and desires of the patient (McConville, 2002). (LE=4, GR=B)
- Allow the caregiver and patient to express any psychological issues and advantages they may have concerning IC. (LE=4, GR=C)
- Counsel the patient about the possible alteration in their relationship as a result of the caregiver performing such an intimate procedure, prior to obtaining consent (McConville, 2002; Chartier-Kastler & Denys, 2011; Shaw et al., 2008). (LE=4, GR=C)
- Advise patients to take a Medical travel document in case they are travelling abroad. (LE=4, GR=C)

Patient and Caregiver Education – Why, Who, When, Where, How, and What

- Ensure that the healthcare professional is proficient in both the skills and teaching of IC. (LE=4, GR=C)
- IC should be taught by an appropriately experienced nurse. (LE=4, GR=C)
- Individualise teaching for the patients and their caregivers (Wilde, Brasch, & Zhang, 2011). (LE=4, GR=C)
- Use consistent teaching methods and modelling of desired behaviour to increase patient and caregiver's practical skills and satisfaction. (LE=4, GR=C)
- Develop a relationship and environment that encourages and supports the patient towards self-management of long-term bladder conditions

(Logan et al., 2008). (LE=4, GR=B)

- Encourage the patient and/or caregiver to handle the equipment first and talk through the procedure before demonstrating the technique because this aids the learning process. (LE=4, GR=C)
- Empower the patient and/or caregiver to take an active role in catheter management (McConville, 2002). (LE=4, GR=C)
- Educate the patient and/or caregiver about the safe moving and handling of the patient (NICPG, 2009). (LE=4, GR=C)
- Provide verbal explanation of IC and sufficient time for practical instruction of the procedure to the patient/caregiver. (LE=4, GR=C)
- Assure that all verbal information is reinforced with written information to help the patient and caregiver learn the procedure. (LE=4, GR=C)

Ongoing Support and Follow-up

- Provide ongoing social support (by consultation/telephone) to improve quality of life (QoL) (Pomfret & Winder, 2007; Winder, 2008; Jaquet et al., 2009) and prevent complications. (LE=4, GR=C)
- Assess adherence in patients by keeping a registration of catheterisation practice, IC cessation, and other relevant aspects. (van Achterberg et al., 2008). (LE=4, GR=C)
- Ongoing support should be available for patients and relatives for the period of the catheterisation. (LE=4, GR=C)

Procedures for Intermittent Catheterisation

Recommendations for IC by a Healthcare Professional

- Verbal consent should be obtained from the patient for IC before starting the procedure. (LE=4, GR=C)
- Observe local protocol on procedure for IC. (LE=4, GR=C)
- Observe the protocols for the principles of the aseptic procedures (Gould et al., 2009). (LE=4, GR=C)
- Use a sterile catheter to prevent cross contamination in clinical, rehabilitations, and long term care settings. (LE=4, GR=C)
- Check for lidocaine and chlorhexidine intolerance if using a lubricant containing lidocaine and/or chlorhexidine*. (LE=4, GR=C)
- Use a sterile single-use packet of lubricant jelly, when inserting a non-coated urethral catheter*. (LE=4, GR=C)
- Install 10 ml of lubricating gel in male, 6 ml in female patients (Bardsley, 2005) when inserting a non-coated urethral catheter*. (LE=4, GR=C)
- Routine use of antiseptic lubricants for inserting the catheter is not necessary*. (LE=4, GR=C)
- Perform IC after micturition if it is indicated in a patient who is able to void*. (LE=4, GR=C)
- Use a voiding diary to investigate the fluid intake and output in the patient*. (LE=4, GR=C)

The above recommendations with an asterisk (*) should also be included in the patient/caregiver education on intermittent (self) catheterisation.

Meatal Cleansing

- Cleaning or disinfection of the meatus urethrae. (Unresolved issue)

Troubleshooting

- Reassess the choice of material, equipment, catheterisation technique, lubrication, etc. in case of problems. (LE=4, GR=C)
- Increase the traction on the penis slightly and apply a steady, gentle pressure on the catheter if resistance is felt at the external sphincter. Ask the patient to strain gently as if passing urine. (LE=4, GR=C)
- Instruct the non-neurogenic patient to do pelvic floor exercises (relaxing the pelvic floor during insertion and removing) because this may be helpful to reduce pain. (LE=4, GR=C)
- Use a slightly larger Charrière (Ch) size if there is a small lumen catheter buckle/kink in the urethra. (LE=4, GR=C)
- Use a smaller lumen catheter in case of complaints of suction or place the thumb on the catheter during removal to avoid suction. (LE=4, GR=C)
- Use a special tip (Tiemann, IQ-Cath®, Ergothan) catheter or hold the penis in an upright position to straighten out the curves, if unable to negotiate the catheter past the U-shaped bulbar urethra. (LE=4, GR=C)
- When inserting a Tiemann tip, the tip must point upward in the 12 o'clock position to facilitate passage around the prostate gland (Smith, 2003). (LE=4, GR=C)
- Assess the patient's bowel function in case of constipation to prevent pressure on the drainage lumen. (LE=4, GR=C)
- Add additional lubrication and/or gel coated catheters to reduce discomfort in women with mucosal atrophy. (LE=4, GR=C)
- Insert the catheter carefully to reduce the risk of bladder calculus formation caused by pubic hairs in the bladder. (LE=4, GR=C)

Infection Prevention

Urinalysis

- Undertake urinalysis or take a specimen of urine for culture if a patient has symptoms suggesting a UTI (Tenke et al., 2008). (LE=4, GR=C)

Fluid Intake

- Encourage patients to drink enough fluid to maintain a urine output of at least 1,200 ml per day (Heard & Buhrer, 2005). (LE=4, GR=C)
- Patients should be given sufficient fluid based on their weight (25-35 ml/kg/day). (LE=4, GR=C)

Cranberries

- Do not recommend cranberry supplementation routinely to prevent or treat UTI (Jepson, Mihaljevic, & Craig, 1998; Jepson & Craig, 2008). (LE=1b, GR=A)

Hand Hygiene

- Observe protocols on hand hygiene before catheterisation (Tenke et al., 2008; Biering-Sørensen, Bagi, & Høiby, 2001). (LE=1b, GR=A)
- Educate patient/caregiver in techniques of hand hygiene before discharge from hospital. (LE=4, GR=C)

Patient QoL

- Discuss sexuality and impact of IC as a part of patient assessment; if necessary, refer to a psychologist/sexologist. (LE=4, GR=C)

Documentation

- Complete a voiding diary for all intermittent catheterisation patients to assess bladder emptying. (LE=4, GR=C)
- Offer patients an individualised care plan based on the above criteria, bearing in mind the patient's and caregiver's lifestyles and the impact this will have on the patient's QoL (Getliffe et al., 2007). (LE=4, GR=C)

Intermittent Urethral Dilatation

Materials and Procedure

- Inform the patient and/or caregiver that long-term intermittent urethral dilatation is not curative and will be required long-term unless e.g., reconstructive surgery is planned (Lauritzen et al., 2009). (LE=4, GR=C)
- Advise the patient and/or caregiver not to continue advancing the catheter if more than minimal force is required. (LE=4, GR=C)

Definitions:

Level of Evidence

Level	Type of Evidence
1a	Evidence obtained from meta-analysis of randomised trials
1b	Evidence obtained from at least one randomised trial
2a	Evidence obtained from one well-designed controlled study without randomisation
2b	Evidence obtained from at least one other type of well-designed quasi-experimental study
3	Evidence obtained from well-designed non-experimental studies, such as comparative studies, correlation studies and case reports
4	Evidence obtained from expert committee reports or opinions or clinical experience of respected authorities

Grade of Recommendation

Grade	Type of Evidence - Nature of Recommendations
A	Based on clinical studies of good quality and consistency addressing the specific recommendations and including at least one randomised trial
B	Based on well-conducted clinical studies, but without randomised clinical trials

Type of Evidence - Nature of Recommendations	
Grade C	Made despite the absence of directly applicable clinical studies of good quality

Clinical Algorithm(s)

The original guideline document includes an algorithm for options when adaptation of the catheterisation pattern is needed.

Scope

Disease/Condition(s)

Diseases or conditions requiring urethral intermittent catheterisation or urethral intermittent dilatation

Note: Intermittent (in/out) catheterisation (IC) is defined as drainage or aspiration of the bladder or a urinary reservoir with subsequent removal of the catheter. For the purpose of this document IC is deemed to include both urethral intermittent catheterisation and urethral intermittent dilatation.

Guideline Category

Counseling

Management

Prevention

Treatment

Clinical Specialty

Nursing

Urology

Intended Users

Advanced Practice Nurses

Nurses

Guideline Objective(s)

- To improve current standards of urological nursing care by directly helping members of the European Association of Urology Nurses develop or update their expertise
- To provide guidelines with recommendations that clearly state the level of evidence of each procedure, with the aim of improving current practices and delivering a standard and reliable protocol
- To help nurses identify potential problem areas and efficiently carry out effective patient care
- To support nurses and practitioners who are already assessed as competent in the procedure of intermittent catheterisation
- To complement, or provide support to, established clinical practice

Target Population

Adults with diseases or conditions requiring urethral intermittent catheterisation or urethral intermittent dilatation

Interventions and Practices Considered

Treatment/Management

1. Urethral catheterisation (intermittent in adults: intermittent dilatation in adults)
    - Catheter materials (polyvinyl chloride, silicone, ethylene vinyl acetate, other)
    - Types of catheters (single-use with or without coating, male and female, discreet/compact, reusable)
    - Catheter tips (Nelaton, Tiemann/Coudé, flexible rounded tip [Ergothan tip], pointed tip [IQ-Cath®], Mercier, Couvelaire, introducer/protective tip)
    - Catheter connectors
    - Diameter size and length
    - Catheter lubrication/catheter coating
    - Insertion aids and help devices
2. Determination of frequency of catheterisation
    - Assess fluid intake and urine output and frequency
    - Ultrasound bladder scans for residual urine
3. Patient and caregiver assessment regarding health, ability to understand information and perform the skill, compliance, and need for support
4. Patient education and ongoing support and follow-up
5. Procedures for intermittent catheterisation (choice of technique, choice of material, meatal cleansing, troubleshooting)
6. Infection prevention
7. Discussion of impact on patient quality of life (QoL)
8. Documentation, including voiding diary, reasons for catheterisation, residual volume, frequency, materials used, and problems encountered
9. Intermittent urethral dilatation
10. Treatment of complications

Major Outcomes Considered

- Complications of catheterisation (e.g., infection, trauma)
- Physical and psychological discomfort
- Patient compliance with instruction
- Patient quality of life

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Literature Search

The information offered in these guidelines was obtained through a systematic literature search and a review of current procedures undertaken in various member countries of the European Association of Urology Nurses (EAUN).

PubMed and Embase were searched using both free text and the respective Medical Subject Headings (MeSH) and EMTREE thesauri. The time frame covered in the searches was January 2000 to July 2011. If a topic were not covered by the results of the search, earlier references were used. Additional searches about topics such as compliance and quality of life were carried out by the Working Group for the specific chapters. Links from the EAUN website to relevant articles are also included.

The search was based on the keywords listed below. The main question that is addressed in these guidelines, and for which the references were searched was: "Is there any evidence for intermittent catheterisation and urethral dilatation for nursing interventions in different care situations such as preparation, insertion, or care of intermittent catheters as well as catheter materials or complications?"

- Intermittent catheteriz(s)ation (MeSH)
- Self catheteriz(s)ation
- Clean catheteriz(s)ation
- Urinary catheter
- Coated catheter
- Ready to use catheter
- Hydrophilic coated catheter
- Compact catheter
- Single use catheter
- Complications and intermittent catheteriz(s)ation
- Meatal cleaning/disinfection
- Re-use catheter

For indications, contraindications, and complications, the following keywords were added:

- Prostatitis
- Orchitis
- Epididymitis
- Epididymo-orchitis
- False passage
- Urethral stricture
- Urethral trauma
- Bladder calculus
- Bladder perforation
- Catheter knotting
- Meatal stenosis
- Cystitis

For dilatation, search studies describing aetiology, indications/contraindications, and frequency of dilations were included and the following keywords were added:

- Urethral dilatation and/or stricture

Limitations of the Search

The search results were not limited to randomised controlled trials (RCT), controlled clinical trials, meta-analyses, or systematic reviews. In all databases, output was limited to human studies, adults aged ≥19 years, 2000 to July 2011, and publications in English language. Additional searches were not limited to any level of evidence and book chapters were also used.

Search Results

The initial search on catheterisation was done by two experts in the nursing field. See Flowchart 1 and Flowchart 2 in the original guideline document for search results for "Intermittent catheterization" and "Dilatation." It was a policy decision to restrict the search in this way, although the group were aware that more complex strategies were possible, and would be encouraged in the context of a formal systematic review. In the process of working with the articles, new references were found and added to the reference list, if they were relevant to the topic and cited in the text.

Number of Source Documents

Literature search "Intermittent catheterization": 112 studies included

Literature search "Dilatation": 7 studies included

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Level of Evidence

Level	Type of Evidence
1a	Evidence obtained from meta-analysis of randomised trials
1b	Evidence obtained from at least one randomised trial
2a	Evidence obtained from one well-designed controlled study without randomisation
2b	Evidence obtained from at least one other type of well-designed quasi-experimental study
3	Evidence obtained from well-designed non-experimental studies, such as comparative studies, correlation studies and case reports
4	Evidence obtained from expert committee reports or opinions or clinical experience of respected authorities

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Rating System

The recommendations provided in the original guideline documents are based on a rating system modified from that produced by the Oxford Centre for Evidence-based Medicine (OCBM) in 2011. All group members participated in the critical assessment of the scientific papers identified.

Whenever possible, the Guidelines Working Group have graded treatment recommendations using a three-grade recommendation system (A-C) and inserted levels of evidence to help readers assess the validity of the statements made. The aim of this practice is to ensure a clear transparency between the underlying evidence and a recommendation given. This system is further described in the "Rating Scheme for the Strength of Evidence" and the "Rating Scheme for the Strength of Recommendations" fields.

Some of the literature was not easy to grade. However, if the European Association of Urology Nurses (EAUN) Working Group thought that the information would be useful in practice, it was ranked as level of evidence 4 and grade of recommendation C. Low-level evidence indicates that no higher level evidence was found in the literature when writing the guidelines, but cannot be regarded as an indication of the importance of the topic or recommendation for daily practice.

The literature used in these guidelines included qualitative research, but because there is no systematic ranking for these types of studies, the qualitative studies were all graded level 4.

The recommendations in these guidelines are not based on reviews.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

The European Association of Urology Nurses (EAUN) Guidelines Working Group for intermittent catheters has prepared this guideline. The expert panel consists of a multidisciplinary team of nurse specialists and a urologist.

The Working Group included an extensive number of topics that are not always only applicable to catheterisation, but decided to include them because they make the guidelines more complete.

Rating Scheme for the Strength of the Recommendations

Grade of Recommendation

Grade	Type of Evidence - Nature of Recommendations
A	Based on clinical studies of good quality and consistency addressing the specific recommendations and including at least one randomised trial
B	Based on well-conducted clinical studies, but without randomised clinical trials
C	Made despite the absence of directly applicable clinical studies of good quality

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

A blinded review was carried out by specialised nurses, urologists in various European countries, and a patient organisation representative. The Working Group revised the document based on the comments received and included relevant references received (also from after the search period). A final version was approved by the European Association of Urology Nurses (EAUN) Board and the European Association of Urology Executive responsible for EAUN activities.

Evidence Supporting the Recommendations

References Supporting the Recommendations

Amarenco G, Guinet A, Jousse M, Verollet D, Ismael SS. Pencil and paper test: a new tool to predict the ability of neurological patients to practice clean intermittent self-catheterization. J Urol. 2011 Feb;185(2):578-82. PubMed

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Chartier-Kastler E, Denys P. Intermittent catheterization with hydrophilic catheters as a treatment of chronic neurogenic urinary retention. Neurourol Urodyn. 2011 Jan;30(1):21-31. PubMed

Getliffe K, Fader M, Allen C, Pinar K, Moore KN. Current evidence on intermittent catheterization: sterile single-use catheters or clean reused catheters and the incidence of UTI. J Wound Ostomy Continence Nurs. 2007 May-Jun;34(3):289-96. [19 references] PubMed

Gould CV, Umscheid CA, Agarwal RK, Kuntz G, Pegues DA, Healthcare Infection Control Practices Advisory Committee. Guideline for prevention of catheter-associated urinary tract infections 2009. Atlanta (GA): Centers for Disease Control and Prevention; 2009.

Heard L, Buhrer R. How do we prevent UTI in people who perform intermittent catheterization. Rehabil Nurs. 2005 Mar-Apr;30(2):44-5, 61. [11 references] PubMed

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Jepson RG, Mihaljevic L, Craig JC. Cranberries for treating urinary tract infections. In: Cochrane Database of Systematic Reviews [database online]. Issue 4. ; 1998 [Art. No.: CD001322].

Lauritzen M, Greis G, Sandberg A, Wedren H, Ojdeby G, Henningsohn L. Intermittent self-dilatation after internal urethrotomy for primary urethral strictures: a case-control study. Scand J Urol Nephrol. 2009;43(3):220-5. PubMed

Logan K, Shaw C, Webber I, Samuel S, Broome L. Patients' experiences of learning clean intermittent self-catheterization: a qualitative study. J Adv Nurs. 2008 Apr;62(1):32-40. PubMed

McConville A. Patients' experiences of clean intermittent catheterisation. Nurs Times. 2002 Jan 24-30;98(4):55-6. PubMed

Oh SJ, Ku JH, Lim SH, Jeon HG, Son H. Effect of a 'centralized intensive education system' for clean intermittent self-catheterization in patients with voiding dysfunction who start catheterization for the first time. Int J Urol. 2006 Jul;13(7):905-9. PubMed

Pascoe G, Clovis S. Evaluation of two coated catheters in intermittent self-catheterization. Br J Nurs. 2001 Mar 8-21;10(5):325-9. PubMed

Pomfret I, Winder A. The management of intermittent catheterization: assessing patient benefit. Br J Neurosci Nurs. 2007;3(6):266.

Robinson J. Intermittent self-catheterisation: teaching the skill to patients. Nurs Stand. 2007 Mar 28-Apr 3;21(29):48-56; quiz 58. PubMed

Shaw C, Logan K, Webber I, Broome L, Samuel S. Effect of clean intermittent self-catheterization on quality of life: a qualitative study. J Adv Nurs. 2008 Mar;61(6):641-50. PubMed

Smith JM. Indwelling catheter management: from habit-based to evidence-based practice. Ostomy Wound Manage. 2003 Dec;49(12):34-45. [43 references] PubMed

Tenke P, Kovacs B, Bjerklund Johansen TE, Matsumoto T, Tambyah PA, Naber KG. European and Asian guidelines on management and prevention of catheter-associated urinary tract infections. Int J Antimicrob Agents. 2008 Feb;31(Suppl 1):S68-78. [114 references] PubMed

The National Intermittent Catheterisation Professional Group (NICPG). Clean intermittent catheterisation. The patient's journey. United Kingdom. Bathgate (Scotland): British Association of Urological Nurses; 2009.

van Achterberg T, Holleman G, Cobussen-Boekhorst H, Arts R, Heesakkers J. Adherence to clean intermittent self-catheterization procedures: determinants explored. J Clin Nurs. 2008 Feb;17(3):394-402. PubMed

Wilde MH, Brasch J, Zhang Y. A qualitative descriptive study of self-management issues in people with long-term intermittent urinary catheters. J Adv Nurs. 2011 Jun;67(6):1254-63. PubMed

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Wyndaele JJ, Maes D. Clean intermittent self-catheterization: a 12-year followup. J Urol. 1990 May;143(5):906-8. PubMed

Wyndaele JJ. Chronic prostatitis in spinal cord injury patients. Paraplegia. 1985 Jun;23(3):164-9. PubMed

Wyndaele JJ. Intermittent catheterization: which is the optimal technique?. Spinal Cord. 2002 Sep;40(9):432-7. [64 references] PubMed

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

The group based the text on evidence whenever possible, but if evidence is missing it is based on best practice. Especially most of the text in the appendices to the original guideline document is based on best practice.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate management of urethral intermittent catheterization and urethral intermittent dilation in adults

Potential Harms

Complications associated with urethral intermittent catheterisation in adults includes nosocomial, epididymo-orchitis, urethritis, and prostatitis infections; trauma resulting in false passage, urethral stricture, meatal stenosis, and bladder perforation; catheter knotting; formation of bladder calculus; and pain/discomfort.

Chapter 5 of the original guideline document contains more detailed information on complications of urethral intermittent catheterisation.

Contraindications

Contraindications

Contraindications to Urethral Intermittent Catheterisation

- Contraindications to intermittent catheterization are few and in the main are related to high intravesical pressure (absolute contraindication), which would require continuous free drainage to avoid renal damage.
- Poor manual dexterity in the absence of an appropriately trained caregiver/attendant is a relative contraindication.

Contraindications to Urethral Intermittent Dilation

- Suspected or confirmed urethral rupture

- Suspected or confirmed urinary tract infection (UTI)
- Suspected or confirmed false passage

Qualifying Statements

Qualifying Statements

Qualifying Statements

The European Association of Urology Nurses (EAUN) Guidelines Working Group for intermittent catheters has prepared the original guideline document to help nurses assess the evidence-based management and incorporate the recommendations of the guidelines into their clinical practice. These guidelines are not meant to be prescriptive, nor will adherence to them guarantee a successful outcome in all cases. Ultimately, decisions regarding care must be made on a case-by-case basis by health care professionals after consultation with their patients, using their clinical judgement, evidence-based knowledge, and expertise.

Limitations of the Document

- The EAUN acknowledge and accept the limitations of the original guideline document. It should be emphasised that the current guidelines provide information about the treatment of an individual patient according to a standardised approach. The information should be considered as providing recommendations without legal implications. The intended readership is the pan-European practising urology nurse and nurses working in a related field.
- Cost-effectiveness considerations and non-clinical questions are best addressed locally and therefore fall outside the remit of the original guideline document. Other stakeholders, including patient representatives, have not been involved in producing the original guideline document.
- The list of catheter companies mentioned in the original guideline document is not meant to be exhaustive. The catheters highlighted are meant as an illustration only and nurses may use similar products from other companies not listed in the guideline.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Chart Documentation/Checklists/Forms

Clinical Algorithm

Patient Resources

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Vahr S, Cobussen-Boekhorst H, Eikenboom J, Geng V, Holroyd S, Lester M, Pearce I, Vandewinkel C. Catheterisation. Urethral intermittent in adults: dilatation, urethral intermittent in adults. Arnhem (The Netherlands): European Association of Urology Nurses (EAUN); 2013 Mar. 96 p. [119 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2013 Mar

Guideline Developer(s)

European Association of Urology Nurses - Medical Specialty Society

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Guideline Committee

The European Association of Urology Nurses (EAUN) Guidelines Working Group

Composition of Group That Authored the Guideline

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Financial Disclosures/Conflicts of Interest

Disclosures

The European Association of Urology Nurses (EAUN) Guidelines Working Group members have provided disclosure statements of all relationships that might be a potential source of conflict of interest. The information has been stored in the European Association of Urology (EAU) database.

The EAUN is a non-profit organisation and funding is limited to administrative assistance and travel and meeting expenses. No honoraria or other reimbursements have been provided.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available from the European Association of Urology Nurses (EAUN) Web site .

Print copies: Available from the European Association of Urology (EAU), PO Box 30016, NL-6803, AA ARNHEM, The Netherlands. E-mail: eaun@uroweb.org and from the EAU webshop.

Availability of Companion Documents

Various resources, including checklists for patient information, patient teacher procedures, a list of help devices, voiding diary, and medical travel documents for patients are available in the appendices to the original guideline document .

Patient Resources

The following resources are available in the appendices to the original guideline document :

- A list of help devices
- Voiding diary for intermittent catheterisation patients
- Changes in urine due to food and medication
- Medical travel document for patients

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

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